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CHECK AGAINST DELIVERY

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The Evolution of the International Monetary System

In response to the worst financial crisis since the 1930s, policy-makers around the globe are providing unprecedented stimulus to support economic recovery and are pursuing a radical set of reforms to build a more resilient financial system. However, even this heavy agenda may not ensure strong, sustainable, and balanced growth over the medium term. We must also consider whether to reform the basic framework that underpins global commerce: the international monetary system. My purpose this evening is to help focus the current debate.

While there were many causes of the crisis, its intensity and scope reflected unprecedented disequilibria. Large and unsustainable current account imbalances across major economic areas were integral to the buildup of vulnerabilities in many asset markets. In recent years, the international monetary system failed to promote timely and orderly economic adjustment.

This failure has ample precedents. Over the past century, different international monetary regimes have struggled to adjust to structural changes, including the integration of emerging economies into the global economy. In all cases, systemic countries failed to adapt domestic policies in a manner consistent with the monetary system of the day. As a result, adjustment was delayed, vulnerabilities grew, and the reckoning, when it came, was disruptive for all.

Policy-makers must learn these lessons from history. The G-20 commitment to promote strong, sustainable, and balanced growth in global demand—launched two weeks ago in St. Andrews, Scotland—is an important step in the right direction.

What Is the International Monetary System and How Should It Function?

The international monetary system consists of (i) exchange rate arrangements; (ii) capital flows; and (iii) a collection of institutions, rules, and conventions that govern its operation. Domestic monetary policy frameworks dovetail, and are essential to, the global system. A well-functioning system promotes economic growth and prosperity through the efficient allocation of resources, increased specialization in production based on comparative advantage, and the diversification of risk. It also encourages macroeconomic and financial stability by adjusting real exchange rates to shifts in trade and capital flows.

To be effective, the international monetary system must deliver both sufficient nominal stability in exchange rates and domestic prices, and timely adjustment to shocks and structural changes. Attaining this balance can be very difficult. Changes in the geographic distribution of economic and political power, the global integration of goods and asset markets, wars, and inconsistent monetary and fiscal policies all have the potential to

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undermine a monetary system. Past systems could not incent systemic countries to adjust policies in a timely manner. The question is whether the current shock of integrating one-third of humanity into the global economy—positive as it is—will overwhelm the adjustment mechanisms of the current system.

There are reasons for concern. China's integration into the global economy alone represents a much bigger shock to the system than the emergence of the United States at the turn of the last century. China's share of global GDP has increased faster and its economy is much more open.[1] As well, unlike the situation when the United States was on the gold standard with all the other major countries, China's managed exchange rate regime today is distinct from the market-based floating rates of other major economies. History shows that systems dominated by fixed or pegged exchange rates seldom cope well with major structural shocks.

This failure is the result of two pervasive problems: an asymmetric adjustment process and the downward rigidity of nominal prices and wages. In the short run, it is generally much less costly, economically as well as politically, for countries with a balance of payments surplus to run persistent surpluses and accumulate reserves than it is for deficit countries to sustain deficits. This is because the only limit on reserve accumulation is its ultimate impact on domestic prices. Depending on the openness of the financial system and the degree of sterilization, this can be delayed for a very long time.[2] In contrast, deficit countries must either deflate or run down reserves.

Flexible exchange rates prevent many of these problems by providing less costly and more symmetric adjustment. Relative wages and prices can adjust quickly to shocks through nominal exchange rate movements in order to restore external balance. When the exchange rate floats and there is a liquid foreign exchange market, reserve holdings are seldom required.[3] Most fundamentally, floating exchange rates overcome the seemingly innate tendency of countries to delay adjustment.

A brief review of how the different international monetary regimes failed to manage this trade-off between nominal stability and timely adjustment provides important insights for current challenges.

The Evolution of the International Monetary System

The Gold Standard

Under the classical gold standard, from 1870 to 1914, the international monetary system was largely decentralized and market-based. There was minimal institutional support, apart from the joint commitment of the major economies to maintain the gold price of

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[1] See Chart 1. In addition, the U.S. economy was fairly closed from 1870 to 1913, as imports/GNP averaged roughly 4-7 per cent, and the U.S. share of total world trade remained relatively stable (Lipsey 1994; Rostow 1978). China, on the other hand, is very open, with imports/GDP around 30 per cent, and it accounts for an ever-increasing share of world trade.

[2] There is, however, an important welfare loss in pursuing unbalanced growth. Domestic consumers are made worse off by reduced purchasing power, and thwarting adjustment via sterilization leads to mounting quasi-fiscal costs and distorts the domestic financial system. The important point is that balanced global growth is sustainable global growth.

[3] Except in exceptional circumstances, such as a near-term market breakdown, which creates a severe lack of liquidity and warrants intervention.

their currencies. Although the adjustment to external imbalances should, in theory, have been relatively smooth, in practice it was not problem-free.[4] Surplus countries did not always abide by the conventions of the system and tried to frustrate the adjustment process by sterilizing gold inflows. Deficit countries found the adjustment even more difficult because of downward wage and price stickiness. Once the shocks were large and persistent enough, the consequences of forfeiting monetary independence and asymmetric adjustment ultimately undermined the system.[5]

The gold standard did not survive World War I intact. Widespread inflation caused by money-financed war expenditures and major shifts in the composition of global economic power undermined the pre-war gold parities. Crucially, there was no mechanism to coordinate an orderly return to inflation-adjusted exchange rates. When countries, such as the United Kingdom in 1925, tried to return to the gold standard at overvalued parities, they were forced to endure painful deflation of wages and prices in order to restore competitiveness. Though this was always going to be difficult, it proved impossible when surplus countries thwarted reflation.

During the Great Depression, with an open capital account and a commitment to the gold-exchange standard, the United States could not use monetary policy to offset the economic contraction.[6] Fidelity to gold meant that the deflationary pressures from the United States spread quickly, further weakening the global economy. Unable to adjust to these pressures, countries were forced to abandon the system. Though deficit countries experienced the first crisis, all countries suffered from the eventual collapse—a lesson that was repeated in subsequent systems.

Bretton Woods

The Bretton Woods system of pegged, but adjustable, exchange rates was a direct response to the instability of the interwar period. Bretton Woods was very different from the gold standard: it was more administered than market-based; adjustment was coordinated through the International Monetary Fund (IMF); there were rules rather than conventions;[7] and capital controls were widespread.

Despite these institutional changes, surplus countries still resisted adjustment. Foreshadowing present problems, countries often sterilized the impact of surpluses on domestic money supply and prices. Like today, these interventions were justified by

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[4] For example, under the price-specie flow mechanism, if a country ran a trade surplus, gold inflows would occur, raising the price level and thus causing imports to increase and exports to decrease until the balance of trade was equilibrated.

[5] More generally, the gold standard suffered from the fact that the money supply was dependent on the supply of gold. Inadequate gold supply led to deflation in the 1880s, which was only alleviated by major gold discoveries in South Africa, Western Australia, and Canada in the following decade. Even then, concerns with respect to the supply of gold remained.

[6] As the Federal Reserve pursued tight monetary policy in the aftermath of the crash of 1929, it simultaneously sterilized the resulting large gold inflows. In 1931, to counteract the outflow of gold (due to the U.K.'s decision to leave gold), the Fed sharply raised its rediscount rate. This effort to maintain confidence in convertibility resulted in considerable monetary tightening and, consequently, a further wave of bank failures in the ensuing six months.

[7] Article IV (iii) states that members should "avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members…."

arguing that imbalances were temporary and that, in any event, surpluses were evidence more of virtue than "disequilibria." In contrast, the zero bound on reserves remained a binding constraint for deficit countries, which eventually ran out of time.

The Bretton Woods system finally collapsed in the early 1970s after U.S. policy became very expansionary, its trade deficit unsustainable, and the loosening of capital controls began to put pressure on fixed exchange rates. Once again, all countries suffered from the aftershocks.

The Current Hybrid System

After the breakdown of the Bretton Woods system, the international monetary system reverted to a more decentralized, market-based model. Major countries floated their exchange rates, made their currencies convertible, and gradually liberalized capital flows. In recent years, several major emerging markets adopted similar policies after experiencing the difficulties of managing pegged exchange rate regimes with increasingly open capital accounts. The move to more market-determined exchange rates has increased control of domestic monetary policy and inflation, accelerated the development of financial sectors, and, ultimately, boosted economic growth.

Unfortunately, this trend has been far from universal. In many respects, the recent crisis represents a classic example of asymmetric adjustment. Some major economies have frustrated real exchange rate adjustments by accumulating enormous foreign reserves and sterilizing the inflows. While their initial objective was to self-insure against future crises, reserve accumulation soon outstripped these requirements (Table 1). In some cases, persistent exchange rate intervention has served primarily to maintain undervalued exchange rates and promote export-led growth. Indeed, given the scale of its economic miracle, it is remarkable that China's real effective exchange rate has not appreciated since 1990 (Chart 2).

This flip side of these imbalances was a large current account deficit in the United States, which was reinforced by expansionary U.S. monetary and fiscal policies in the wake of the 2001 recession. In combination with high savings rates in East Asia, these policies generated large global imbalances and massive capital flows, creating the "conundrum" of very low long-term interest rates, which, in turn, fed the search for yield and excessive leverage. While concerns over global imbalances were frequently expressed in the run-up to the crisis, the international monetary system once again failed to promote the actions needed to address the problem. Vulnerabilities simply grew until the breaking point.

Some pressures remain. The financial crisis could have long-lasting effects on the composition and rate of global economic growth.[8] Since divergent growth and inflation prospects require different policy mixes, it is unlikely that monetary policy suitable for United States will be appropriate for most other countries. However, those countries with relatively fixed exchange rates and relatively open capital accounts are acting as if it is. If this divergence in optimal monetary policy stance increases, the strains on the system will grow.

Postponed adjustment will only serve to increase vulnerabilities. In the past, the frustration of adjustment by surplus countries generated deflationary pressures on the rest

[8] Reinhart and Rogoff (2009).

of the world. Similarly, today, the adjustment burden is being shifted to others. Advanced countries—including Canada, Japan, and the Euro area—have recently seen sizable appreciations of their currencies.

The net result could be a suboptimal global recovery, in which the adjustment burden in those countries with large imbalances falls largely on domestic prices and wages rather than on nominal exchange rates. History suggests that this process could take years, repressing global output and welfare in the interim.

The Way Forward

To avoid these outcomes, there are several options.

The first is to reduce overall demand for reserves. Alternatives include regional reserve pooling mechanisms and enhanced lending and insurance facilities at the IMF. While there is merit in exploring IMF reforms, their effect on those systemic countries that already appear substantially overinsured would likely be marginal. As I will touch on in a moment, the G-20 process may have a greater impact.

On the supply side, several alternative reserve assets have been suggested. The motivation of these proposals is primarily to redistribute the so-called "exorbitant privilege" that accrues to the United States as the principal supplier of reserve currency. As such, the United States receives an advantage in the form of lower financing costs in its own currency. This advantage would be shared (and possibly reduced in aggregate) if there were competing reserve currencies. In turn, this could marginally reduce the *collective* imbalances of reserve currency countries.[9] [10]

Over the longer term, it is possible to envision a system with other reserve currencies in addition to the U.S. dollar. However, with few alternatives ready to assume a reserve role, the U.S. dollar can be expected to remain the principal reserve currency for the foreseeable future. Despite the exuberant pessimism reflected in the gold price, total gold stocks represent only $1 trillion or about 10 per cent of global reserves and a much smaller proportion of global money supply.[11] The renminbi's prospects are moot absent convertibility and open capital markets, which would themselves likely do much to reduce any pressure for a change.

Increased Use of Special Drawing Rights

At first glance, Special Drawing Rights (SDRs) would be an intriguing alternative reserve asset.[12] Using SDRs appeals to a sense of fairness in that no one country would enjoy the exorbitant privilege of reserve currency status. Like a multiple reserve currency system, it may reduce the aggregate incentives of countries that supply the constituent currencies of

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[9] However, network externalities and transactions costs would work against multiple reserve currencies, as they did during bi-metallism and the pound/dollar period under the gold standard.

[10] The well-known Triffin (1960) dilemma, which argued that, in order for the global economy to have sufficient liquidity, the United States had to run balance-of-payments deficits; but such deficits could undermine confidence in convertibility. Bordo (1993) rightly notes that under flexible exchange rates, the Triffin dilemma disappears, as any adjustment could occur through capital flows (for example, India has accumulated desired foreign reserves, through capital inflows, despite a current account deficit).

[11] Recall that under the gold exchange standard, 40 per cent of money supply was backed by gold.

[12] Zhou (2009); United Nations (2009)

the SDR to run deficits. In addition, there appears to be no technical reason why the use of SDRs could not be expanded.

However, the question must be asked: to what end? Merely enhancing the role of the SDR would do little either to increase the flexibility of the system or change the incentives of surplus countries. By providing a ready swap of existing reserve currencies into a broader basket, SDR reserves could also further displace adjustment onto other freely trading currencies, thus exacerbating the imbalances in the current system. Indeed, by providing instant diversification, SDR reserves could entrench some of the existing strategies of surplus countries.

This would change if the proposal were taken to its logical extreme: the SDR as the single global currency. Setting aside the fact that the world is not an optimum currency area (not least due to the absence of free mobility of labour, goods, and capital), this appears utopian. While the level of international co-operation has certainly increased since the crisis, it would be a stretch to assert that there is any appetite for the creation of the independent global central bank that would be required.[13] As a result, any future SDR issuance is likely to be ad hoc.[14]

A Substitution Account

Greater use of SDRs might be best suited to encouraging a transition to a more stable international monetary system by facilitating any desired reserve diversification. Establishing, on a temporary basis, an enhanced substitution account at the IMF would allow large reserve holders to exchange U.S.-dollar reserves for SDR-denominated securities, thereby diversifying their portfolios. With the IMF bearing the risk of changes in the U.S.-dollar exchange rate, an appropriate burden-sharing arrangement among its members would have to be agreed upon.

A substitution account would create considerable moral hazard, since reserve holders would be tempted to engage in further accumulation. In addition, a substitution account would not address the fundamental asymmetry of the adjustment process. Thus, it would appear essential that a substitution account mark the transition from the current hybrid system to an international system characterized by more flexible exchange rates for all systemic countries.

In general, alternatives to the dollar as the reserve currency would not materially improve the functioning of the system. While reserve alternatives would increase pressures on the United States to adjust, since “artificial” demand for their assets would be shared with others, incentives for the surplus countries that have thwarted adjustment would not change. The common lesson of the gold standard, the Bretton Woods system and the current hybrid system is that *it is the adjustment mechanism, not the choice of reserve asset, that ultimately matters*.

[13] That is not to argue that the role of SDRs cannot be enhanced, particularly among central banks (see Williamson 2009).

[14] Under current rules, new SDRs can be issued only with the agreement of members, representing 85 per cent of voting share.

With the adjustments that would arise automatically from floating exchange rates or unsterilized intervention muted, the burden is squarely on policy dialogue and co-operation.

A Practical Solution: The G-20 and Shared Responsibility

The G-20 framework moves in the right direction. It stresses countries' shared responsibility to ensure that their policies support "strong, sustainable and balanced growth." Under the framework, members have agreed to a mutual assessment of their monetary, exchange rate, fiscal, and financial policies, with the assistance of the IMF and other international financial institutions. The implications of these policies for the level and pattern of global growth and the risks to financial stability will be reviewed by finance ministers and governors in preparation for agreement on any common actions by G-20 leaders in Canada and South Korea next year.

There are several reasons why this mutual assessment process has the potential to develop shared understanding and encourage action across a range of countries. There is a clear timetable. A comprehensive set of policies will be considered. Policy-makers at the highest levels are directly involved, with international financial institutions in a supportive, rather than leading, role. Finally, discussions will take place at the G-20, where all major economies are present and where China has assumed a very constructive, leadership role.

Framework discussions would be complemented by successful implementation of the G-20 financial reform agenda. These reforms, when combined with the peer review process of the Financial Stability Board (FSB) and external reviews by the IMF, could increase actual and *perceived* systemic stability and thereby reduce reserve accumulation.

Canada's Macroeconomic Strategy and the G-20 Framework

Canada will bring to these discussions one of the soundest financial systems in the world and a macroeconomic strategy that contributes to sustainable and balanced global growth. Our economy is one of the most open and our policy response to the crisis has been one of the most aggressive. Starting from the strongest fiscal position in the G-7, Canada's fiscal stimulus this year and next will total 4 per cent of GDP. Monetary stimulus has been both unprecedented and timely.

As a result of these policy actions, the IMF projects that Canadian domestic demand will be the strongest in the G-7 next year. With a current account that has shifted from a surplus of 2 per cent of GDP in the first quarter of 2006 to a deficit of 3 per cent today, Canada is doing its part to rebalance global growth.

Consistent with the objectives of the G-20 framework, Canadian policy is guided by transparent and coherent frameworks. The Government of Canada has announced a fiscal plan to return its budget to broad balance by 2015. The cornerstone of the Bank's monetary policy framework is its inflation target, which aims to keep the annual rate of CPI inflation close to 2 per cent. It is in this context that we view the exchange rate.

A floating exchange rate is a central element of our monetary policy framework. It allows Canada to pursue an independent monetary policy appropriate to our own economic circumstances. Although there is no target for the Canadian dollar, the Bank does care why the exchange rate moves and what the potential impact will be on output and

inflation. The challenge for the Bank is to understand the reasons behind currency movements, incorporate those into our assessments of other data, and set a course for monetary policy that works to keep total demand and supply in balance and inflation on target.

In the current environment, such determinations are more important than usual.

Recent indicators point to the start of a recovery in Canadian economic activity following three consecutive quarters of sharp contraction. This resumption of growth is supported by monetary and fiscal stimulus, increased household wealth, improving financial conditions, higher commodity prices, and stronger business and consumer confidence.

However, heightened volatility and persistent strength in the Canadian dollar are working to slow growth and subdue inflation pressures. The current strength in our dollar is expected, over time, to more than fully offset the favourable developments since July.

On 20 October, the Bank reaffirmed its conditional commitment to maintain its target for the overnight rate at the effective lower bound of 1/4 per cent until the end of June 2010 in order to achieve the inflation target.

To put it simply, the Bank looks at everything, including the exchange rate, through the prism of achieving our inflation target. For example, we do see a risk that a stronger-than-assumed Canadian dollar, driven by global portfolio movements out of U.S.-dollar assets, could act as a significant further drag on growth and put additional downward pressure on inflation. As I mentioned previously, movements in currencies could reflect current challenges in the operation of the international monetary system, which may result in the displacement of adjustment pressures onto a handful of currencies.

Whatever happens, the Bank retains considerable flexibility in the conduct of monetary policy at low interest rates, consistent with the framework that we outlined in our April *Monetary Policy Report*.

If downside risks materialize, the Bank will use that flexibility to the extent required in order to achieve our price stability mandate. If upside risks materialize, the Bank will also act to achieve our price stability mandate. While the underlying risks to our October economic projection are roughly balanced, the Bank judges that, as a consequence of operating at the effective lower bound, the overall risks to our inflation projection are tilted slightly to the downside.

Conclusion

To conclude, this crisis was caused in part by failures to meet the same challenges that bedevilled previous international monetary systems. The common lesson of the gold standard, the Bretton Woods system, and the current hybrid system is that it is the adjustment mechanism, not the choice of reserve asset, that ultimately matters. In this regard, any greater use of SDRs might be best suited to encouraging a transition from the current hybrid system to an international monetary system characterized by more flexible exchange rates for all systemic countries.

While surplus countries can delay adjustment, in the end, all nations suffer when the system breaks down. In the current environment, growing strains could spur

protectionism, both in trade and finance, or alternatively, raise sanctions.[15] The negative consequences for the global economy would be considerable.

All countries should accept their responsibilities for promoting an open, flexible, and resilient international monetary system. Responsibility means recognizing spillover effects between economies and financial systems and working to mitigate those that could amplify adverse dynamics. It means submitting their financial policies to peer review within the FSB and external review by the IMF. Fundamentally, it means adopting coherent macro policies and allowing real exchange rates to adjust to achieve external balance over time. Indeed, in a world of global capital, all systemically important countries and common economic areas should move towards market-based exchange rates.

[15] See Bergsten (2009).

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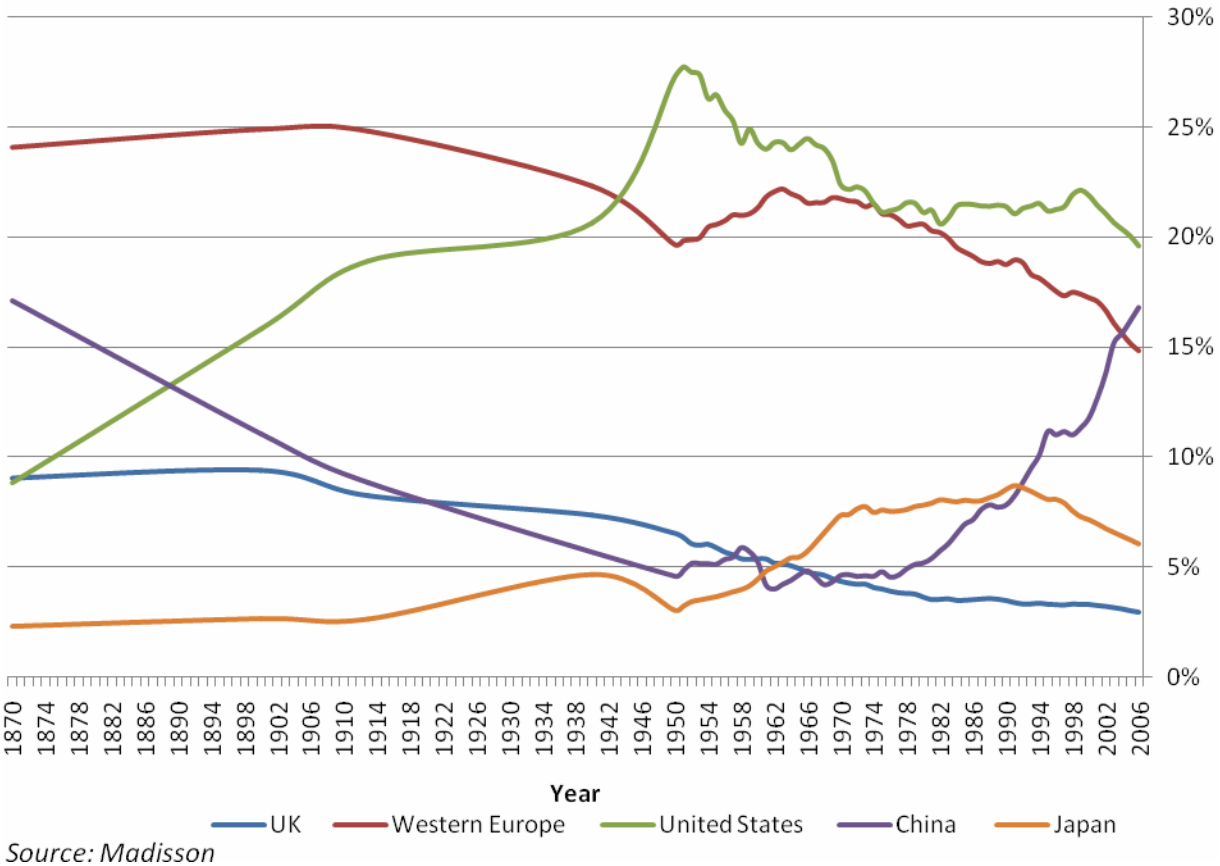
Appendix

Chart 1: Shares of World GDP



Source: Madisson

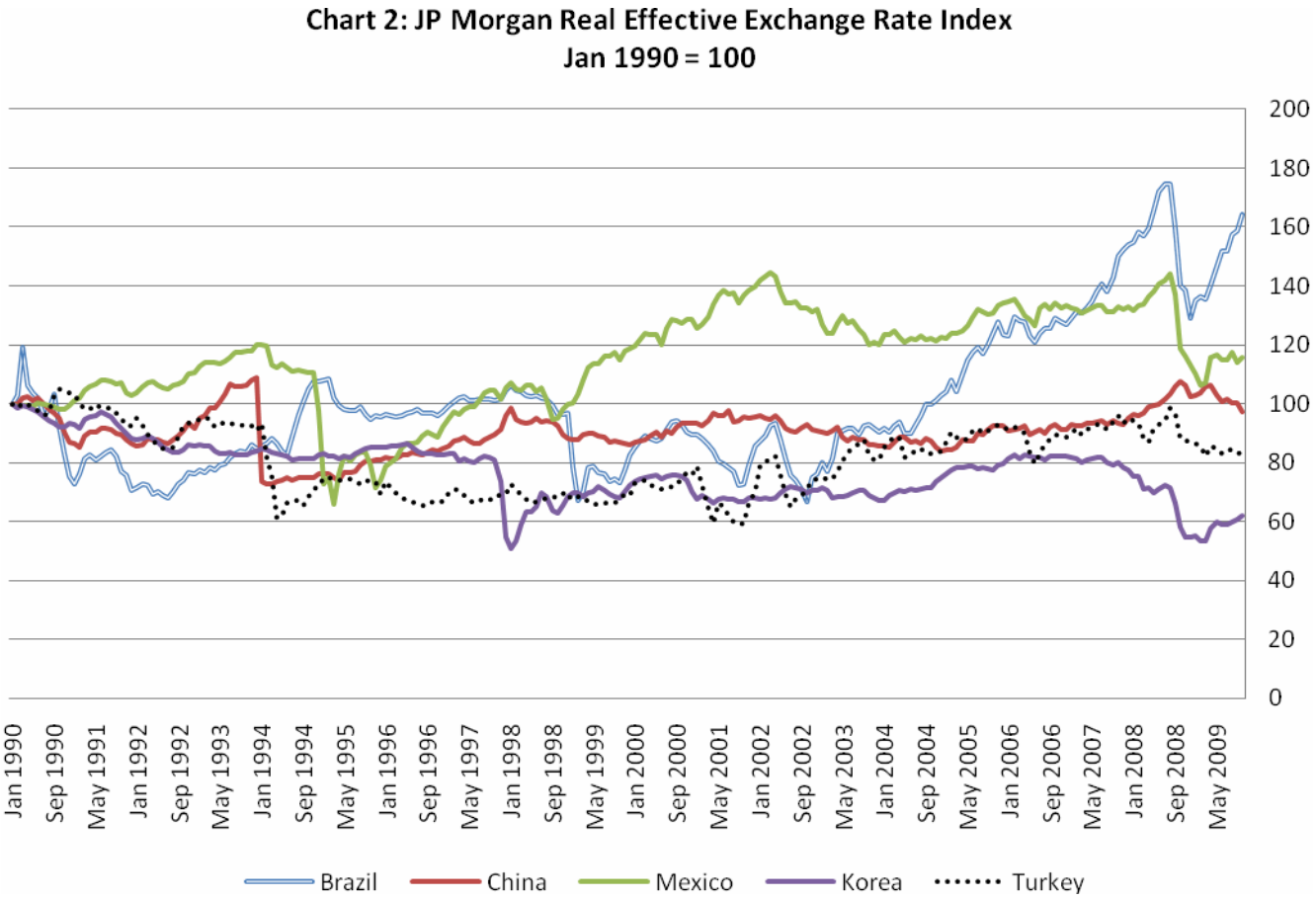


Chart 2: JP Morgan Real Effective Exchange Rate Index
Jan 1990 = 100
200
180
160
140
120
100
80
60
40
20
0
Jan 1990
Sep 1990
May 1991
Jan 1992
Sep 1992
May 1993
Jan 1994
Sep 1994
May 1995
Jan 1996
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May 1997
Jan 1998
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May 1999
Jan 2000
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May 2001
Jan 2002
Sep 2002
May 2003
Jan 2004
Sep 2004
May 2005
Jan 2006
Sep 2006
May 2007
Jan 2008
Sep 2008
May 2009
Brazil
China
Mexico
Korea
Turkey

Table 1: International Reserves of Selected Countries

	Reserves (US$ Billions)	Reserves/GDP (%)		Reserves/Monthly Imports		Reserves/M2 (%)	
		2000	2008	2000	2008	2000	2008
China	2272.6	13.8	45.0	8.1	19.0	10.1	28.0
Russia	434.4	10.8	26.6	5.5	13.9	50.2	74.8
India	278.2	7.6	22.7	6.6	8.3	14.0	31.3
South Korea	264.2	18.0	21.7	6.0	4.6	29.4	36.8
Brazil	231.1	5.1	12.0	5.5	10.6	11.6	23.6
Thailand	135.3	26.6	42.6	5.5	6.5	25.1	41.7
Malaysia	95.9	30.6	47.0	3.6	6.0	25.0	36.4
Canada	56.2	4.5	3.1	1.4	1.0	6.2	2.7

Source: National Statistical Agencies, World Bank, IMF, Economist Intelligence Unit. The first column is most recent data; the rest are calculated using year-end values. M2 is obtained from the IMF and is defined as money plus quasi-money.